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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,323	10/07/2003	Masahiro Inoue	Q77822	2674

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EXAMINER

WEST, LEWIS G

ART UNIT PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/679,323	Applicant(s) INOUE, MASAHIRO	
	Examiner Lewis G. West	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

DSRC merely refers to a type of device which is a subset of RFID used for short-range vehicle applications. Further, DSRC is still irrelevant to the proposed invention, as a DSRC device would be equivalent to any other device with a like communications structure, such as the ones in the reference. Applicant's proposed invention is directed to the application of the adhesive, and DSRC would only be relevant to signaling, which would not affect the adhesive.

Further, a change in length is a change in shape, it changes the surface area of the device and the characteristics of the device. A change in length is absolutely a change in length. If you extend the length of a square, it becomes a rectangle, which is a different shape. While applicant is allowed to be his own lexicographer, applicant cannot redefine the meaning of "shape".

Further Fisher does disclose the adhesive only on the circumferential (outside perimeter) portion as cited.

Drawings

The drawing sheet was received on November 6, 2006. These drawings are not submitted in the proper format, although the correction to the identifying number would be acceptable if submitted as a proper drawing correction.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

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Drawing changes must be made by presenting replacement sheets which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments section, or remarks, section of the amendment paper. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). A replacement sheet must include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheet(s) must be clearly labeled as "Annotated Sheet" and must be presented in the amendment or remarks section that explains the change(s) to the drawings.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805).

Regarding claim 2, Fisher discloses a Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material comprising: an antenna (15) for communicating with roadside radio equipment (see col. 2 lines 10-13, cellular communications would involve communicating with a base station radio equipment, which could be roadside, and as the location of the equipment is merely an intended use and as no roadside equipment is positively claimed, the limitation is met by the art); a housing (outside engaging portion 13) in which only said antenna is housed (Col. 2 lines 35-47); and an adhesive material (in the context of this claim, both the silicon gel adhesive 34 and the double sided tape adhesive 32, or the combination of the two, read on this limitation) having a first surface affixed to said housing and a second surface for affixing to a vehicle window (Col. 2 lines 48-67), wherein: a protruding portion engaged with said adhesive material is disposed on said housing. (see Figure 4, wherein the silicon adhesive is engaged with a protruding portion of the device to be mounted by being applied to channel 30) wherein said antenna, said housing, and said adhesive material constitute said DSRC. While a device specifically conforming to DSRC protocols is not expressly disclosed, Fisher discloses the claimed physical structure otherwise. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use DSRC in order to conform to an existing protocol to expand the interoperability of the device.

Regarding claim 8, Fisher discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein only a circumferential portion of the protruding portion is in engaged with the adhesive, (Figure 4).

Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805) in view of Baratono (US 6,549,793).

Regarding claim 1, Fisher discloses a Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material comprising: an antenna (15) and a radio portion a data processing portion (cellular phone) for communicating with roadside radio equipment (see col. 2 lines 10-13, cellular communications would involve communicating with a base station radio equipment, which could be roadside, and as the location of the equipment is merely an intended use and as no roadside equipment is positively claimed, the limitation is met by the art) a housing (outside engaging portion 13) in which at least antenna is housed (Col. 2 lines 35-47); and an adhesive material (in the context of this claim, both the silicon gel adhesive 34 and the double sided tape adhesive 32, or the combination of the two, read on this limitation) having a first surface affixed to said housing and a second surface for affixing to a vehicle window (Col. 2 lines 48-67), wherein: a protruding portion engaged with said adhesive material is disposed on said housing. (see Figure 4, wherein the silicon adhesive and tape are engaged with a protruding portion of the device to be mounted by being applied to channel 30) wherein said antenna and radio portion, said data processing portion and said adhesive material constitute said DSRC on-board unit, but does not expressly disclose that the said radio portion, and said data processing portion may be mounted in the attached housing with the antenna. While a device specifically

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conforming to DSRC protocols is not expressly disclosed, Fisher discloses the claimed physical structure otherwise. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use DSRC in order to conform to an existing protocol to expand the interoperability of the device.

Baratono discloses an adhesive mounted on-board communication device including an antenna, a radio portion and a data processing portion for processing received data from the radio portion wherein the radio portion is mounted in the same housing with the antenna. (Col. 2 lines 50-55). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to include the radio and processing portions in the mounted device, as is suggested in Baratono (Col. 4 lines 24-32) that all communications circuitry, may be included in the same housing or certain portions may be placed elsewhere in the vehicle. Therefore it would have been reasonable to use the advantages of either situation, while the structure in Fisher would provide for more possibilities in antenna placement, it would also have been apparent to one of ordinary skill in the art that combining all circuitry in one device would provide for easier manufacturing.

Regarding claim 3, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: said protruding portion is fitted into an aperture formed on said adhesive material. (See Fisher, Figure 4, wherein the adhesive layer, which includes the silicon and tape, form an aperture within which a protruding portion of the housing resides)

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Regarding claim 4, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: a height of said protruding portion is less than a thickness of said adhesive material. (See Fisher, Figure 4, wherein the adhesive layer, which includes the silicon and tape, form an aperture within which a protruding portion of the housing resides, and this protruding portion is narrower in thickness than the height of the silicon gel adhesive)

Regarding claim 5, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein: a leading end surface of said protruding portion is a flat surface. (See Figure 4 of Fisher, the portion of the protrusion adhered to the double sided tape is flat.)

Regarding claim 7, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, wherein only a circumferential portion of the protruding portion is in engaged with the adhesive, (Figure 4).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher (US 4,931,805) in view of Baratono (US 6,549,793) and further in view of Wunderlich (US 4,931,806).

Regarding claim 6, the combination of Fisher and Baratono discloses the Dedicated Short-Range Communications (DSRC) on-board unit with an adhesive material according to claim 1, but does not address how antenna adjustments are made. Wunderlich discloses a communication with an antenna in the adhesively mountable section wherein the antenna

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characteristics are matched by adjusting a shape of said antenna. (Col. 6 lines 5-17) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to adjust the antenna characteristics by changing the shape, as the nature of antennas dictates that size and shape determine their characteristics, and by changing the shape to improve these characteristics may reduce loss and unwanted radiation at the device as well as improving the received signal. (See Wunderlich col. 5 lines 12-17) and Wunderlich further expresses that it incorporates the structure of the Fisher reference (see col. 3 lines 26-41)

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Lewis West
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